

CLAIMS

We Claim:

1. A thermal management socket system, comprising:
a thermal management unit having a chamber, wherein said chamber is capable of receiving at least one electronic device;
a plurality of first connectors within said chamber of said thermal management unit, wherein said first connectors may be electrically coupled with a corresponding plurality of device connectors of an electronic device; and
a plurality of second connectors, wherein each of said second connectors are electrically coupled to said first connectors and wherein said second connectors may be electrically coupled to a board.

2. The thermal management socket system of Claim 1, including a liquid thermal management system coupled to said chamber for thermally managing an electronic device.

3. The thermal management socket system of Claim 2, wherein said liquid thermal management system is comprised of spray cooling.

4. The thermal management socket system of Claim 2, wherein said liquid thermal management system is comprised of liquid immersion.

1 5. The thermal management socket system of Claim 1, wherein said second
2 connectors may be electrically coupled with a socket unit.

3
4
5 6. The thermal management socket system of Claim 1, wherein said second
6 connectors may be electrically coupled with a plurality of socket receptacles within a
7 socket unit.

8
9
10 7. The thermal management socket system of Claim 1, wherein said second
11 connectors may be electrically coupled to a board.

12
13
14 8. The thermal management socket system of Claim 1, wherein said second
15 connectors are comprised of a pin grid array.

16
17
18 9. The thermal management socket system of Claim 1, wherein said second
19 connectors are comprised of a ball grid array.

20
21
22 10. The thermal management socket system of Claim 1, wherein said second
23 connectors are comprised of a land grid array.

24
25
26 11. The thermal management socket system of Claim 1, wherein said first
27 connectors are each comprised of a receptacle structure capable of receiving a
28 corresponding device connector from an electronic device.

1
2 12. The thermal management socket system of Claim 1, wherein said first
3 connectors are each comprised of a raised structure capable of electrically coupling
4 with an electronic device utilizing a ball grid array or a land grid array.
5
6

7 13. The thermal management socket system of Claim 1, wherein said thermal
8 management unit is comprised of a base portion containing said first connectors and
9 said second connectors, and a cap member removably connectable to said base portion
10 for defining said chamber.
11
12

13 14. A method of utilizing a thermal management unit, said method comprising
14 the steps of:

15 providing a thermal management unit, wherein said thermal management unit is
16 capable of receiving at least one electronic device; and

17 electrically coupling said thermal management unit to a socket unit, wherein
18 said socket unit is attached to a board.
19
20

21 15. The method of utilizing a thermal management unit of Claim 14, including
22 the step of positioning and electrically coupling an electronic device within said
23 thermal management unit.
24
25

26 16. The method of utilizing a thermal management unit of Claim 15, including
27 the step of sealing said thermal management unit about said electronic device.
28
29

1 17. The method of utilizing a thermal management unit of Claim 16, wherein
2 said step of sealing said thermal management unit comprises attaching a cap member
3 in a sealed manner to a base portion of said thermal management unit.
4

5
6 18. The method of utilizing a thermal management unit of Claim 14, wherein
7 said thermal management unit utilizes liquid thermal management system for thermally
8 managing an electronic device positioned within said thermal management unit.
9

10
11 19. A method of utilizing a thermal management unit, said method comprising
12 the steps of:

13 providing a thermal management unit, wherein said thermal management unit is
14 capable of receiving at least one electronic device and wherein said thermal
15 management unit is capable of electrically coupling to a socket unit; and

16 positioning and electrically coupling an electronic device within said thermal
17 management unit.
18

19
20 20. The method of utilizing a thermal management unit of Claim 19, including
21 the step of sealing said thermal management unit about said electronic device.
22

23
24 21. The method of utilizing a thermal management unit of Claim 20, wherein
25 said step of sealing said thermal management unit comprises attaching a cap member
26 in a sealed manner to a base portion of said thermal management unit.
27

1 22. The method of utilizing a thermal management unit of Claim 19, wherein
2 said thermal management unit utilizes liquid thermal management system for thermally
3 managing an electronic device positioned within said thermal management unit.
4